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## **The instructions as instrument of the development of professional activity**

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### **Abstract**

In this paper, we present the results of a study on the circumstances in which instructions given by various interlocutors (cooperating teacher, university supervisor, colleagues) favor the development of professional activity of a preservice teacher. The study was conducted within the framework of the Cultural Historical Activity Theory (CHAT) (Vygotsky 1978, 1997) and activity theory (Leontyev 1981), with its methods for the clinical study of activity (Clot 2008). The results show that the preservice teacher's intrapsychic conflicts arose from the concurrence of and discordances between the instructions stated by the various interlocutors ("inter-psychic conflicts") and from the confrontation between these instructions and the experience of classroom. These conflicts prompted the development of the preservice teacher's professional activity through the construction of new goals and new motives for action (development through sense) and the construction of new operations to reach these goals (development through efficiency). This study suggest that collaboration between a cooperating teacher, other teachers, and the university supervisor in a school setting provides the conditions for encouraging and guiding the professional development of preservice teachers.

**Keywords:** preservice teacher training; professional development; activity; mentoring

### **1- Background**

This oral presentation is part of a much larger research program<sup>1</sup> to reform teacher training in France. The specific aim of the study is to analyze the circumstances of the professional development of preservice teachers, with a focus on the impact of their interactions with various interlocutors (cooperating teacher, university supervisor, colleagues) on the development of the classroom teaching experience. The professional development is a complex process whereby the preservice teacher's belief, knowledge, reflection change (Avalos, 2010). Some studies describe the professional development through improvement in reflexive practices using observational tools and video recordings of classroom activity (Borko et al, 2008; Koc et al, 2009). The results notably point out that preservice teachers use video cases as a basis for reflection and discussion in relation to the difficulties they themselves encounter in the classroom. Comparison of the similarities and differences between the activity observed on the video and one's own activity encourages the building of new references for classroom action. Another studies point that mentoring takes an important place and promotes the professional development: the results notably point out how school-university partnerships bridge the gap between their different perspectives of professional development or highlight the importance of such a space as an area for joint work or joint contributions (Bartholomew & Sandholtz, 2009). Nevertheless, these research, although highly promising for the creation of new programs for teacher training, provide little insight into the impact of the video recordings on the development of teaching skills in the classroom. In other words, the relationship between reflexive practice and classroom skills has been little

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<sup>1</sup>The research program, Développement de l'activité, travail et identité des enseignants en formation (DATIEF; Development of Activity, Work, and Identity in Teachers in Training) has the goal of evaluating the effectiveness of training programs for developing the professional activity of preservice teachers.

documented, and many of the details about the nature of professional development remain obscure.

The present study was designed to address these limitations and the objective was to identify the impact of the instructions addressed by various interlocutors (cooperating teacher, university supervisor, and another teacher) on the development of professional activity of preservice teachers.

## 2- Framework of the study

The case study was conducted within the framework of the Cultural Historical Activity Theory (CHAT) (Vygotsky 1978, 1997) and of activity theory (Leontyev 1981), with its methods for the clinical study of activity (Clot 2008). The study borrows the principle of activity development through internalization of *external signs* during the course of dialogic interactions from vygotskian theory. According to Vygotsky (1978), the internalization of *external signs*, which marks the passage from the inter-psychic to the intrapsychic, favors the development of higher psychical functions. This postulate corresponds to the process by which preservice teachers internalize instructions given by their interlocutors and thus are able to modify their thinking and even the meaning of their experience. The new meanings that these teachers construct about their experience open the possibility of constructing new actions and operations for acting in the classroom.

## 3- Methods

### Participants

Tomas was a preservice physics teacher and was working for the first time in a high school in Lyon, France. He was working with a second-year class of 34 students from 15 to 17 years old. At the beginning of the school year, Tomas had expressed the need to be accompanied in this first teaching experience. He agreed to participate in this study because he perceived that the researcher's presence would be a potential aid in better understanding his own classroom activity.

Three participants were called upon: Tomas' cooperating teacher (school mentor), another physics teacher and the university supervisor.

### Data collection and processing

The data were analyzed in three steps.

#### Step 1

After transcribing all the interview data, the corpus was broken down into units of analysis related to the study object and the theoretical framework. These units were defined from the preservice teacher's citing of an action associated with a motive in the form: [*Do this or do that... because, in order to*]. For some actions, it was possible to identify operations [*by doing this*]. A new unit was determined each time Tomas cited a new action.

#### Step 2

The set of cited actions was then presented in a table in coded form that dissociated (a) actions and operations from (b) motives for action, following the coding method of Méard, Bertone and Flavier (2008).

#### Step 3

Each unit of analysis was then inserted in a table with four columns: column 1 presented the unit of analysis, column 2 presented the verbatim transcription of the interview, column 3 presented the coded action stated by the preservice teacher (actions dissociated from the motives for action), and column 4 presented the coded instructions stated by interlocutors according to the modality described above. The objective was to use the table to identify the

links between the statement of an action from Tomas and the statement of the instruction addressed to him by his interlocutors (Table 1).

Table 1. Presentation of the unit of analysis in four columns

Column 1 UA	Column 2 <b>Transcription</b> <b>Interview</b> of November 22, 2007	Column 3 <b>Actions</b> stated by preservice teacher	Column 4 <b>Instructions</b> stated by interlocutors
43	<p><b>Cooperating teacher (CT):</b> You see, there, you're saying "OK, OK" and you repeat it and you still don't get that you have to make the students repeat it. The university supervisor made a point of it and you didn't do it.</p> <p><b>Preservice teacher:</b> Yeah, you're right. I repeat what the student said but I don't think of the instruction. When students ask a question or give an answer, I should make them repeat it (...).</p> <p><b>Researcher (R):</b> But why do you have to make the students repeat it?</p> <p><b>Preservice teacher:</b> Well, what I do when a student says something, I realize that not all the students have heard it because sometimes they don't really speak up and so I always repeat what they've just said. And it's true that the university supervisor told me that when I do it that way the students don't listen to the student who's talking because they know I will repeat everything. (...) So the university supervisor told me that, so that I don't repeat everything myself, I should get another student to repeat it and that this would get the students used to speaking to the whole class, and not just to me (...) But all that before making them repeat it in order to have it repeated—well, now I understand it a little better.</p> <p><b>R:</b> What do you mean? Can you tell me here why you have to make a student repeat it?</p> <p><b>Preservice teacher:</b> So that they learn to speak up.</p> <p><b>CT:</b> But it's also to involve several students in speaking, you question several students</p> <p><b>Preservice teacher:</b> To involve several students in speaking, to get them all</p>	<p><i>Intrapsychic conflict</i></p> <p><i>The preservice teacher evaluates the instruction</i></p> <p><u>Action</u> to repeat what students have just said</p> <p><u>Motive</u> (because) students don't really speak up</p> <p><i>The preservice teacher understands instruction's university supervisor</i></p> <p><u>Action</u> to have to make a student repeat</p>	<p><b>Cooperating teacher &amp; University supervisor</b> <u>Action</u> To have to make the students repeat</p> <p><b>University supervisor</b> <u>Action</u> Not to repeat</p> <p><i>Negotiation from students</i></p> <p><u>Action</u> to get student to repeat</p> <p><u>Motive</u> (so that) the students used to speaking to the whole class</p> <p><b>Cooperating teacher</b> <u>Action</u> to involve students in</p>

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involved is what the supervisor said (...).		speaking
	<u>Motive</u>	<u>Motive</u>
	to teach students to speak up	to question several student
	<u>Action</u>	<b>University</b>
	To involve students in speaking	<b>supervisor</b>
		<u>Action</u>
		To get them all involved

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#### 4- Results

The results show that the instructions given by the interlocutors become resources when Tomas are able to self-address them in order to use them as *psychological instruments* (Vygotsky 1978) for professional development. In this study, the preservice teacher's intrapsychic conflicts arose from the concurrence of and discordances between the instructions stated by the various interlocutors ("inter-psyhic conflicts") and from the confrontation between these instructions and the experience of classroom. The process of developing professional activity appears to be tightly linked to the set of conflicts that push the preservice teacher to make choice between instructions and to announce new actions adapted to the characteristics of her classroom experience. The actions that undergo continual adjustment, reconstruction and amendment in response to the transactions between teacher and his interlocutors and between teacher and students in everyday classroom life. Last, the results emphasize the dynamic development of Tomas's professional activity through the linkage between sense and efficiency, "by motives", by "action" and "by operations" with reference to Leontyev's activity model (1981). The development of the preservice teacher's power to act is thus seen through "biphasic development" (Clot 2008): first, the development of sense, which is reflected by displacing and going beyond initial motives through carrying out and going beyond action goals, and second, by the development of efficiency, which is reflected by the implementation of new operations to reach the new goals for action.

#### 5- Conclusions and Implications

With regard to the goal of accompanying future teachers more efficiently as they learn to teach, the results point to the training situation organized around a collective of interlocutors. Within the context of the current reforms in France, it seems important to build training collectives that will encourage the circulation of competing instructions during interactions with preservice teachers and the confrontation of the different ways to teach. On this point, recent studies on training noted that the professional development of preservice teachers is favored by the collaboration of a variety of interlocutors in the mentoring situation (Whitehead & Fitzgerald 2007; Wilson 2006). The results of our study suggest that collaboration between a cooperating teacher, other teachers, and the university supervisor in a school setting provides the conditions for encouraging the confrontation between instructions and daily experience and for guiding the professional development of preservice teachers.

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